S.B. NO. <sup>2049</sup> S.D. 1

# A BILL FOR AN ACT

RELATING TO CANCER RESEARCH.

### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that liver cancer in
Hawaii occurs at extremely high rates. According to the United
States Centers for Disease Control and Prevention and the
University of Hawaii Cancer Center, Hawaii has had the highest
or second highest rate of liver cancer in the country in recent
years.

7 Every year in Hawaii there are one hundred eighty-four 8 newly diagnosed cases of liver cancer, including bile duct 9 cancer, according to the Hawaii Tumor Registry. From 2004 to 10 2013, available data on liver cancer indicates an annual 11 increase in Hawaii of 2.1 per cent in males and 1.3 per cent in 12 females, while the incidence of many other cancers such as 13 colon, lung, prostate, and stomach cancer declined. There are 14 currently about one thousand patients in Hawaii fighting liver 15 cancer and bile duct cancer, both of which are almost always 16 fatal.



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Liver cancer, which starts in the liver and includes bile 1 2 duct cancer, is most commonly caused by the hepatitis B virus, hepatitis C virus, and heavy alcohol consumption. In Hawaii, 3 however, these factors are near the national average, which 4 suggests that other factors may be contributing to the high 5 occurrence of liver cancer in the State. Other factors that can 6 cause liver cancer are liver fluke infection (a type of 7 8 parasitic flatworm found in fish, shrimp, and vegetables grown 9 in fresh water) and eating foods containing aflatoxins (a fungus 10 abundant in warm and humid regions that can grow on foods such 11 as grains and nuts stored improperly). Since there is virtually 12 no data on liver fluke infection and aflatoxin exposure in Hawaii, the State is unable to adequately make causative 13 connections between these factors and liver cancer. 14

15 The University of Hawaii Cancer Center is preparing to 16 conduct a three-year, \$1,100,000 study to examine the prevalence 17 of liver fluke infection, aflatoxin ingestion, and intrahepatic 18 bile duct dilation in the general population and liver cancer 19 patients in Hawaii, and examine any associations with 20 participant characteristics, such as ethnicity. The Cancer



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Center has indicated that it will need \$340,000 for the first 1 year of the study and \$380,000 for each of the remaining years. 2 The purpose of this Act is to make an appropriation to the 3 University of Hawaii Cancer Center to determine if the reasons 4 Hawaii has the highest incidence in the country of liver and 5 bile duct cancer is due to liver fluke infection, aflatoxin 6 ingestion, and intrahepatic bile duct dilation in Hawaii. 7 SECTION 2. There is appropriated out of the general 8 or so much revenues of the State of Hawaii the sum of \$ 9 thereof as may be necessary for fiscal year 2018-2019 for the 10 University of Hawaii Cancer Center to determine the reasons that 11 Hawaii has the highest incidence of liver and bile duct cancer 12 13 in the country.

14 The sum appropriated shall be expended by the University of15 Hawaii for the purposes of this Act.

16 SECTION 3. This Act shall take effect on July 1, 2050.



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#### Report Title:

Cancer Research; Liver Cancer; UH Cancer Center; Appropriation

#### Description:

Appropriates funds to the University of Hawaii Cancer Center to determine the reasons that Hawaii has the highest incidence of liver and bile duct cancer in the country. Effective 7/1/2050. (SD1)

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